

Amendments to the Claims:

1. (Currently amended) A method of DC compensation for a direct conversion radio receiver having an effective filter characteristic representing its frequency response, comprising: the steps of:

applying an inverse filter characteristic to a received modulated signal to compensate for the effect of the effective filter characteristic;

determining the modulation extremes of a received modulated signal; and

determining a DC offset for the signal from the modulation extremes; and processing the signal to compensate for the offset.

2. (Original) A method according to claim 1, comprising determining the DC offset as substantially the mean of the signal amplitude at the modulation extremes.

3. (Original) A method according to claim 1, wherein the step of processing the signal comprises subtracting the offset from the signal.

4. (Original) A method according to claim 1, wherein the step of processing the signal comprises subtracting a weighted exponential function from the signal.

5. (Original) A method according to claim 4, wherein the weighting of the exponential function comprises the determined DC offset.

6. Cancelled

7. (Currently Amended) A method according to claim 6-1, including determining the modulation extremes from the inverse filtered signal.

8. (Original) A method according to claim 1, wherein the signal comprises an in-phase component of a modulated signal.

9. (Original) A method according to claim 1, wherein the signal comprises a quadrature component Q of a modulated signal.

10. (Original) A method according to claim 1, wherein the signal is GMSK modulated.

11. (Original) A computer program which, when run on a processor, carries out the steps of claim 1.

12. (Currently Amended) A direct conversion receiver having an effective filter characteristic representing its frequency response comprising:

inverse filter means to compensate for the effective filter characteristic;

means for determining the modulation extremes of ~~a received modulated~~ the signal;

means for determining a DC offset for the signal from the modulation extremes; and

means for processing the signal to compensate for the offset.

13. Cancelled

14. (Currently Amended) A program to be executed by a digital signal processor in a direct conversion receiver having an effective filter characteristic representing its frequency response, the receiver comprising an inverse filter circuit for applying an inverse filter characteristic to a received modulated signal to compensate for the effect of the effective filter characteristic, a mixer circuit for providing quadrature related signals from the ~~received modulated~~^{the} signal, a DC cancellation circuit for cancelling the DC component in the quadrature related signals and a digital signal processor for removing a residual DC component from the signals, said program being configured to cause the digital signal processor to determine the modulation extremes of the signals, to calculate a DC offset for the signals from the modulation extremes and to process the signals to compensate for the DC offset.

15. (New) A direct conversion radio receiver having an effective filter characteristic representing its frequency response including a digital signal processor for processing a received modulated signal, the digital signal processor being configured to apply an inverse filter characteristic to compensate for the effect of the effective filter characteristic, determine the modulation extremes of the signal, determine a DC offset for the signal from the modulation extremes and to process the signal to compensate for the offset.